

Application No. 09/061,441  
Response dated December 15, 2003  
to Office Action of 08/13/2003

### REMARKS

Applicant respectfully requests reconsideration of the rejection of previously allowed claims 18-24.

The Official Action in Section 3 at Page 3, lines 7-15, argues that Jager (US 6,067,449) teaches inserting amplifier 306 of Jager into the circuit of FIG. 1 of Bruckert et al (US 6,018,651), and provides as a reason at Page 3 of the Official Action, lines 12-15:

“Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Jager into the system of Bruckert so that unnecessary switching between antennas is reduced (see Jager, column 3, lines 31-32).” [Emphasis Supplied]

Applicant respectfully submits that the advantage of reducing unnecessary switching between antennas has nothing to do with the placement of the low noise amplifier 306 in FIG. 3 of Jager, as is completely evident from a reading of col. 3, lines 10-30. If Bruckert et al desired to follow the teachings of Jager re reducing unnecessary switching, clearly Bruckert et al would use components such as Jager's RSSI filter 324, FIG. 3 of Jager, and Jager's Phase Error Measure 332, FIG. 3 of Jager, thereby per Jager, col. 3, lines 28-30:

“adjusting the reference signal quality level [from RSSI Filter 324, FIG. 3 of Jager] in accordance with a further signal quality characteristic for received signals [as obtained from Phase Error Measure 332, FIG. 3, of Jager].” [Parenthetical Phrases Added]

It is unmistakable that the teaching of Jager re reducing unnecessary switching at col. 3, lines 31-32, relates e.g. to avoiding switching due to a dip in signal strength, col. 2,

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lines 60-63, and has no relation to the location of amplifier 306 in the circuit. If the foregoing explanation is unclear in any respect, the Examiner is respectfully urged to telephone the undersigned attorney Jack Sherman at 319-369-3661, to avoid further delay in the completion of prosecution of this application.

The reliance in the Official Action on George (US 3,636,453) in combination with Bruckert and Jager is respectfully submitted to overlook that George is concerned with "receiving weak FM radio signals and simultaneously transmitting similar signals, . . . , at a substantially higher power level." (col. 1, lines 6-9) [Emphasis Supplied]. Such art is totally foreign to Bruckert and Jager.

In George, RF amplifier 8 is part of the feedback loop from hybrid output 6 to hybrid input 7. As stated at col. 2 of George, lines 4-14, the gain of the amplifier should be about 45 db, so that the feedback signal to antenna 1 has a net gain of approximately 39 db, and is radiated as an amplified replica of the signal being received. There is no suggestion that the amplifier 8 is selectively activated with a switch (per claims 19 and 23), or has its operational characteristics altered (per claim 22)..

George completely lacks any teaching of the following underlined limitations of claims 19, 22 and 23:

Claim 19 (previously presented): In a communications system as claimed in claim 18, wherein said feedback loop includes a switch for selectively activating said feedback loop.[Emphasis Supplied]

Claim 22 (previously presented): In a communications system as claimed in claim 21, said first receiving amplifier includes a feedback loop for altering the operational characteristics of said first receiving amplifier. [Emphasis Supplied]

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Claim 23 (previously presented): In a communications system as claimed in claim 22, said feedback loop includes a switch for selectively activating said feedback loop, to selectively change the signal processing characteristics for the incoming radio signal. [Emphasis Supplied]

With respect to claim 19, neither George nor Robinson (US 5,138,277) teaches a switch for “selectively activating said feedback loop

With respect to claim 22, George teaches that the amplifier 8 is to have a gain of approximately 39 db. There is no teaching that the feedback loop for hybrid 3 is “for altering the operational characteristics” of amplifier 8.

With respect to claim 23, neither George nor Robinson (US 5,138,277) teaches a switch for “selectively activating said feedback loop, to selectively change the signal processing characteristics for the incoming radio signal.” In George the incoming radio signal is to be re-radiated with the use of the hybrid feedback loop, and the signal processing characteristics for the incoming radio signal are not altered by a switch. In Robinson, the switched capacitor integrator 112 is an integrator, and is part of a feedback loop for variable attenuator 103. The switched capacitor integrator 112 does not alter the operational characteristics of a receiving amplifier (per claim 22 as included in claim 23), and does not selectively activate said feedback loop (i.e. the “feedback loop for altering the operational characteristics of said first receiving amplifier” per claim 22 as included in claim 23).

The Official Action does not explain how or why a switched capacitor integrator would be added to a combination of Bruckert et al, Jager and George, so as to provide an operational system related to claim 23, read as a whole.

The Official Action at Page 5, lines 3-6, refers to George, col. 1, lines 35-39, which reads as follows:

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**“It is therefore, an object of the present invention to provide new and improved signal processing systems, including AGC circuits, having very long time constants. [Emphasis Supplied]**

It is respectfully urged that this passage read as a whole, along with col. 1, lines 11-17, would suggest using FIG. 1 of Robinson where “very long time constants” are required. The references Bruckert, Jager and George do not appear to require very long time constants, since the thought in Bruckert and Jager is to sample the outputs of respective antennas, and make a decision as to which antenna configuration to use for an incoming radio signal with a high data rate; see e.g. Bruckert col. 12, lines 47-51. In George, the incoming signal is to be simultaneously re-radiated (column 1 of George, line7).

#### **The Patentability of New Claims 46 – 58**

In view of the withdrawal of the allowance of claims and re-opening of prosecution, by the present Official Action of 09/23/2005, applicant has reviewed the grounds of rejection for cancelled claims 33-45, and is presenting new claims 46-58, drafted to clearly bring out the patentable features over the explanation of the rejection of claims 33-45 in the final Official Action.

The final Official Action of 06/13/2005, totally fails to show any teaching in Bruckert et al (US 6,018,651) relevant to the following limitations of new claim 46 (where limitations added in comparison to cancelled claim 33 are underlined):

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(c) wherein the first and second signal receiving paths are circuit paths, and the first signal receiving path from the first antenna to the intermediate frequency stage when activated in the first receiving mode to connect only the first antenna to the intermediate frequency stage has a different signal processing characteristic than the second signal receiving path from the second antenna to the intermediate frequency stage when activated in the second receiving mode to connect only the second antenna to the intermediate frequency stage; and

(d) wherein the first signal receiving path which is a circuit path extending from the first antenna to the intermediate frequency stage when activated in the first receiving mode has different componential circuit structure which provides a different signal processing characteristics for processing the received signal than the componential circuit structure of the second signal receiving path which is a circuit path extending from the second antenna to the intermediate frequency stage when activated in the second receiving mode.

In the final Official Action dated 06/13/2005, the limitation now in subparagraph (c) of new claim 46, is referred to, followed by the explanation at page 3 of the final Official Action of 06/13/2005, lines 3-6, reading:

“(column 1, lines 35-58. See “received signal may not be simultaneously affected to the same extent by the multipath fading” and see column 2, lines 10-16)”

The fact that the air paths from a base station to antennas 114 and 116 of Bruckert may be different has no relevance to subparagraphs (c) and (d) of new claim 46, which specifically refers to the circuit paths as having different componential circuit structure which provide different signal processing characteristics.

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Each of claims 46-58 clearly distinguishes from any possible differences in air paths from the base station to the two antennas in Bruckert, and require first and second signal receiving circuit paths that provide different signal processing characteristics.

**The Bruckert patent points the art away from the present claims 46-58, in teaching switched diversity systems utilizing receiving circuit paths from the two respective antennas 114 and 116 of the same signal processing characteristics.**

The following limitations of claims 46-58 are not fairly taught by the references:  
Claim 46, subparagraphs (c) and (d); and the added limitations of claim 47; Claim 48, the last six lines, and the additional limitations of claims 49-54; Claim 55, the last five lines; Claim 56, the last two subparagraphs; Claim 57, lines 3-5, and the additional limitations of claim 58.

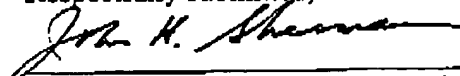
#### **GENERAL AUTHORIZATION**

The Patent and Trademark Office is hereby authorized to charge fees under 37 CFR 1.17 to deposit account 09-0471..

#### **CONCLUSION**

In view of the foregoing amendments and Remarks, a formal Notice of Allowance with respect to claims 18-24, 31 and 32, and new claims 46-58 is courteously solicited.

Respectfully submitted,



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